

Date: Wednesday, 3/8/2006 10:38:27 AM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : FLANGE
Job Number : 26121	
Estimate Number : 12314	
P.O. Number : N/A	Part Number : D34739
This Issue : 3/8/2006 S.O. No. : N/A	Drawing Number : D3473 REV A
Prsht Rev. : NC	Project Number : N/A
First Issue : N/A Type : PURCHASED PARTS	Drawing Revision : A
Previous Run : N/A	Material : N/A
Written By : <u>SEE COMMENT BELOW</u>	Due Date : 3/31/2006 Qty: 10 Um: Each
Checked & Approved By : <u>06.03.08</u>	
Comment : Est Rev:A New Issue 06-03-02 JLM	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	PG	PURCHASING
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Comment: Issue P/O: 00000768
 E-mail or Ship DXF file to vendor
 Laser cut flat pattern as per Dwg D3473
 Possible supplier: Ind. Laser
 Material release note is required.

06/03/09

2.0	D34739F	FLANGE FLAT PATTERN
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Comment: Qty.: 1.0000 sf(s)/Unit Total : 1.0000 sf(s)
 FLANGE PLATE

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1
 Receive & Inspect For Transit Damage
 Ensure material certification is attached

06/03/21 (10)

4.0	QC6	DIMENSIONAL CHECK
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Comment: DIMENSIONAL CHECK

06.03.21 (10)

5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
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Comment: SMALL & MEDIUM FAB RESOURCE 1

06.03.22 (10)

1-Deburr if necessary.

2-Form as per Dwg D3473 using DT8860

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
	5	Install nut plates on this w/o 6 NAS1031C3W m100049 Permit Change					

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: Date: 26/04/25
QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 3/8/2006 10:38:27 AM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLANGE

Job Number: 26121

Part Number: D34739

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

SB 06/04/24

9

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: GA

SB 06/04/24

9

Job Completion



LEVEL 21 inspection SA 06/04/25 9

U 06/04/25

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector


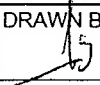
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

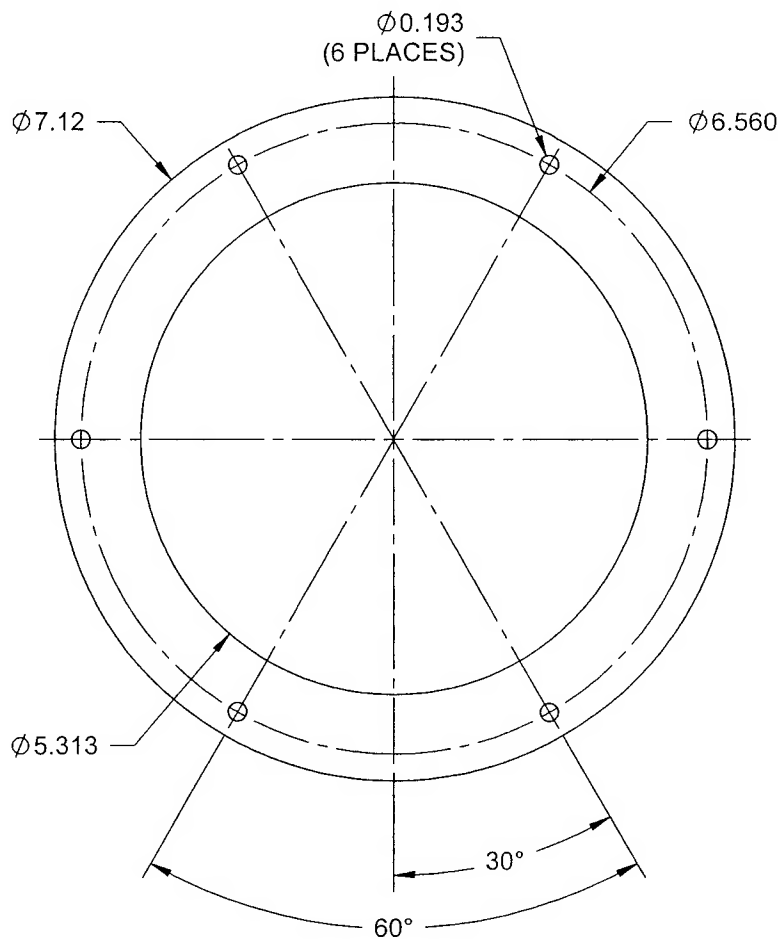
QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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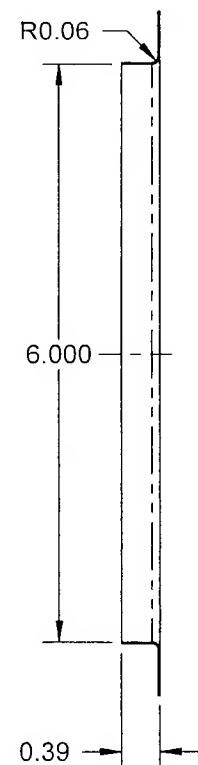
NOTE: Date & initial all entries

PRELIMINARY ISSUE

DESIGN 	DRAWN BY 	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3473	REV. A SHEET 7 OF 7
DATE 06.02.07		TITLE BLOWER INLET ADAPTER	SCALE 1:2



D3473-9F FLANGE FLAT PATTERN



**D3473-9 FLANGE
BENDING DETAIL**

NOTES:

- 1) MATERIAL: AISI 304/316 SS SHEET PER MIL-S-5019 (ANNEALED) 2B FINISH
26 GAUGE SS (0.018 THICK) (REF. DART SPEC. M304S26GA)
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

3/17/06

604-946-453 ATTN: PETE

03/17/2006 14:36 FAX 604 946 4153
03/17/2006 14:18 FAX 604 2729137INDUSTRIAL LASER CUTTING
INTEGRIS METALS002
001/004

3/17/2006 1:57 PAGE 001/002 Fax Server


Ryerson

T-726 P.007/016 F-587

263-288-3838

FROM-INTEGRIS

MAY-17-2006 16:05

		AK Steel Corporation Metallurgical Test Report Coshocton Works Coshocton, OH 43812		Page 1 Lead No. 7410672 SER No. 7410672											
		INTEGRIS METALS PO BOX 340 MINNEAPOLIS, MN 55440		INTEGRIS METALS 306 "B" STREET ALBURN, WA 98001											
MILL ORDER NO. 72184-0191 PROCESSOR ORDER NO. 427135-01 BUYER'S ORDER NO. 427135-01		PART NO. 74151497 ENGLISH UNITS - PRODUCT - METRIC UNITS DIM NOM 48.000 X COIL													
SKID ID	PIECE	HEAT	PARENT COIL ID	NET WEIGHT											
SK0713143	1	7250151	0549919-02	2345 LBS. 4012 KG.											
SK0713144	1	7250151	0549919-01	2470 LBS. 4213 KG.											
SK0713145	1	7250151	0549919-01	2325 LBS. 4088 KG.											
SK0713149	1	7250151	0549919-02	2441 LBS. 3991 KG.											
TOTAL SKIDS	TOTAL PIECES			TOTAL NET WEIGHT											
4	4			2540 LBS. 15075 KG.											
L-Ladle Analysis of Heat P-Product Analysis of Parent Coil CHEMICAL ANALYSES															
ID	C	MN	P	S	SI	CR	NI	MO	N	CU	CO				
L 7250151	.049	1.39	.027	.001	.35	18.18	8.05	.35	.04	.30	.12				
SHIPPING DATE: 03/13/2005 REMARKS: NO INTENTIONAL ADDITIONS OF MERCURY OR MERCURY COMPOUNDS, RADIUM, ALPHA SOURCE, AND LOW MELTING ALLOYS OR ELEMENTS CAPABLE OF FORMING LOW MELTING ALLOYS WERE MADE THROUGHOUT THE PROCESSING OF THIS MATERIAL.															
PRODUCT DESCRIPTION CR SHOT TYPE 304 STAINLESS #2B FINISH SLIT EDGE * AMS 8512 & ALL TECH REQS HAVE BEEN MET UNLESS NOTED TO OR NOTED OTHERWISE * A SIM & 240 -04 EX PARA 3.1.1.3 ELONG WILL BE DETERMINED BY ASTM E 8 * ASTM & 490 -01 EX PARA 19.3.1.1 ELONG WILL BE DETERMINED BY ASTM E 8 & EX PARA 20.3.1.3 COIL WILL BE TAGGED ON OUTSIDE ONLY * ASTM & 866 -03 * IN-601 Rev 0, * IN-011 0 * BUYER PART# 75251497 * ASME SA-240 SECTION II PART B (2001 ED. 2002 ADDENDA) EX PARA 3.1.1.3 ELONG WILL BE DETERMINED BY ASTM E 8 * EN-10204 3.1.5															
PARENT COIL ID	FOR (R/T)	OR (L, T, D)	COND	% ELONG 2 INCH MEASURED	TENSILE STRENGTH (KSI)	YS. % OFFSET (KSI)	ROCKWELL HARDNESS TAIL	ROCKWELL HARDNESS FRONT							
0549919-02	T	T	ASTM F11.2	25.2	127.1	12	72	71							
*** CONTINUED ON NEXT PAGE ***															

Ryerson

3/17/2006 1:57

PAGE 002/002

Fax Server

MAY-17-2006 16:05

FROM-INTEGRIS

253-288-3033

T-726 P.008/015 F-527



AK Steel Corporation
Metallurgical Test Report
Construction Works
Coshocton, OH 43812

Page 2

Lot# No. 7410672
 BRN No. 7410672

ROLL ORDER NO. 427136-01
 PROCESSOR ORDER NO. 427116-01
 BUYERS ORDER NO.

INTEGRIS METALS
 PO BOX 130
 MINNEAPOLIS, MN 55440

INTEGRIS METALS
 305 B STREET
 AUBURN, WA 98001

PLAT NO.
 7421067

ENGLISH UNITS - PRODUCT - METRIC UNITS
 305 NOM 48000 X COIL

C O S T O M E R

S H I P T O

P A C K I N G

T R A I L E R

C O N T A I N E R

D E T A I L S

P A R T N E R

S E R V I C E

P R O D U C T

M A T E R I A L

P R O C E S S

P R O P E R T Y

P R O C E S S

P R O C E S S

P R O C E S S

P R O C E S S

P R O C E S S

P R O C E S S

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THIS CERTIFIED ANALYSIS AND TEST RESULTS ARE THE PROPERTY OF INTEGRIS METALS. ALL RIGHTS ARE RESERVED. NO PART OF THIS REPORT MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM INTEGRIS METALS.

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MATERIAL TEST REPORT

From: NORTH AMERICAN STAINLESS CANADA, IN
740 IMPERIAL ROAD NORTH

Page : 1
Heat/Lot : 86K8
TIN : B42748

Sold To: INTEGRIS METALS, LTD.
7910 40TH STREET SE
CALGARY, AB T2C2Y3

Ship To: ***CUSTOMER PICKUP***
4375 14TH STREET NORTHEAST
CALGARY
ABT3E7A9

Vendor Information

Cust PO #: 416824

Cust PO DT: 11/03/05

Specifications

STAINLESS STEEL SHEET, COLD ROLLED, ANNEALED AND PICKLED.
ASTMA240/04a 480/04a, 666/03, ASME SA240/04-A05, 480/04-A05, SA666/04
QQS766D-A X 1/8 PRM, AMS5513H X MRK&FIN, MIL5059D, AMD3, X CRWN MEAS
CORROSION: ASTM A262/02aE; 180Bend-OK
Buyer Part: 4288441
304 2B .1305 IN 48 IN 96 IN
Country of Origin: UNITED STATES

Mechanical Tests

		UOM	L	O		UOM	L	O
Yield Strength - 0.2% Offset	40	KSI	F	TRANSV				
Tensile Strength (UTS)	93.3	KSI	F	TRANSV				
Rockwell B	85		F	TRANSV				
Pct Uniform Elong 2 In/50mm	57.01	PCT	F	TRANSV				
Rockwell A	85		T	TRANSV				

Chemical Composition

C Carbon-Pct	.059	CR Chromium-Pct	18.360
CU Copper-Pct	.342	MN Manganese-Pct	1.643
MO Molybdenum-Pct	.285	N Nitrogen-Pct	.037
NI Nickel-Pct	8.150	P Phosphorus-Pct	.029
SI Silicon-Pct	.289		

Comments

MATERIAL TEST REPORT

From: NORTH AMERICAN STAINLESS CANADA, IN
740 IMPERIAL ROAD NORTH

Page : 2
Heat/Lot : 86K8
TIN : B42748

Material free from mercury contamination. No weld repairs.
EN 10204 3.1 PED 97/23/EC Annex1, Para. 4.3 Q08763F Cond A
This document certifies the material has been tested in
accordance with applicable specifications described herein
and has met those requirements.

QA by ERIC HESS 02/01/2006

Miscellaneous Data

GUKLPH, ONN K123
Control #: 90C60214
Part #: 74270441
.135 X 48 X 96

Date: 03/17/06

SOLD TO: INDS. LASER

TO 110880

S/O 90-374786 - 02

[Signature] 3/17/06

The Chemical Analysis and Mechanical Test
data was received via EDI from the above
mentioned vendor.

INTEGRIS METALS, LTD.